

PATENT

INSTITUT FRANÇAIS DU PÉTROLE

**PROCESS FOR PRODUCING BIOFUELS: TRANSFORMATION OF
TRIGLYCERIDES IN AT LEAST TWO FAMILIES OF BIOFUELS: MONOESTERS
5 OF FATTY ACIDS AND SOLUBLE ETHERS AND/OR ACETALS OF GLYCEROL**

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A B S T R A C T

A process for producing biofuels by transforming triglycerides into at least two families
10 of biofuels, monoesters of fatty acids and soluble ethers and/or acetals of glycerol, comprises:

- at least one transesterification step in which said triglyceride is reacted by heterogeneous catalysis with at least one primary monoalcohol selected from methanol and ethanol to produce at least one methyl and/or ethyl ester of the fatty acids of the starting triglycerides and glycerol, said products being free of by-
15 products; and
- an etherification step in which the glycerol is reacted with at least one olefinic hydrocarbon containing 4 to 12 carbon atoms; and/or
- an acetalization step in which the glycerol is reacted with at least one compound selected from aldehydes, ketones and acetals derived from aldehydes or ketones.